CLAIMS:

1.   A method of executing one or more software applications in a broadcasting
system (10) including a broadcast provider (20) coupled via at least one communication link
(30) to at least one corresponding user interface (40, 50) including associated computing
means therein, the method comprising the steps of:

5   (a)   receiving one or more requests from at least one user (60) associated with said
at least one user interface (40, 50) for executing at least one preferred software application;
     (b)   checking memory associated with said at least one user interface (40, 50) to
determine whether or not said at least one preferred software application is resident therein;
     (c)   when said at least one software application is found to be already stored in
10   said memory and validated, loading from the memory said at least one preferred software
application to said computing means associated with said at least one user interface (40, 50)
and then executing the software application in said computing means; and
     (d)   when said at least one application is found to be not already stored in the
memory, receiving from the broadcast provider (20) said at least one preferred software
15   application, loading said at least one application to the computing means, validating said at
least one application in the computing means and then subsequently executing said at least
one application when validated in the computing means.

2.   A method according to claim 1, wherein in step (d), said at least one software
20   application when validated is stored in the memory for subsequent potential re-use.

3.   A method according to claim 2, wherein each user interface (40, 50) is
provided with memory managing means operable to overwrite less frequently user-requested
software applications with more recently user-requested software applications, thereby
25   allowing for re-utilization of memory capacity for at least one more frequently user-requested
software application.

4.   A method according to claim 1, wherein, in step (b), at least one validated
software application stored in the memory is compared with at least one corresponding
software application broadcast from the broadcast provider to check for similarity, such that:

(a)   said at least one validated application stored in the memory is executed in the
5   computing means when correspondence between said at least one stored validated application
and at least one broadcast application is identified; and

(b)   said at least one broadcast application is checked for validity, and stored in the
memory when successfully validated and subsequently executed in the computing means,

          the method thereby operable to update said at least one application stored in
10   the memory when newer corresponding at least one application is broadcast from the
broadcast provider (20).

5.   A method according to claim 1, wherein said at least one user interface (40,
50) and corresponding at least one communication link (30) are operable to convey one or
15   more user requests for the preferred software application to the broadcast provider (20) which
is responsive to broadcast said requested preferred application to said at least one user
interface (40, 50).

6.   A method according to claim 1, wherein the broadcast provider is operable to
20   broadcast via said at least one communication link one or more software applications in a
repetitive temporal manner for selective loading into associated memory at said at least one
user interface.

7.   A method according to claim 6, wherein the broadcast provider is operable to
25   broadcast said one or more software applications in a pseudo-continuous manner.

8.   A method according to claim 1, wherein said broadcasting system is a digital
television broadcasting system wherein said at least one user-interface corresponds to at least
one step-top-box (40) coupled to associated displaying means (50), and said at least one
30   communication link (30) is implemented by at least one of wireless links, fibre optical links
and conductive wire communication links.

9.   A method according to claim 8, wherein said displaying means (50) comprises at least one of a cathode ray tube, a pixel plasma display, a pixel back-lit liquid crystal display and a pixel projection liquid crystal display.

5   10.   A method according to claim 1, wherein said at least one preferred software application is selected by use of at least one graphic representative symbol presented to said at least one user at said at least one user interface.

11.   A method according to claim 10, wherein said at least one graphic symbol is
10   implemented as at least one graphics icon.

12.   A method according to claim 1, wherein said at least one user interface is implemented as at least one mobile telephone provided with corresponding graphic display.

15   13.   A method according to claim 1, wherein the memory is implemented as persistent memory operable to retain data therein when de-energized.

14.   A method according to claim 13, wherein the memory is implemented as non-volatile memory utilizing at least one of: solid-state flash memory, magnetic disc memory.
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15.   A method according to claim 1, wherein said at least one software application is implemented as one or more Java Xlets.

16.   A method according to claim 1, wherein, in step (d), validation is performed
25   by a software-implemented Security Manager and validated software applications are executed on a software-implemented Virtual Machine provided in said computing means.

17.   A method according to claim 1, wherein downloading, validation and storage in said memory of validated said at least one software application is performed as a
30   continuous concurrent background activity in said computing means.

18.   A broadcasting system (10) for executing one or more software applications, the system (10) including a broadcast provider (20) coupled via at least one communication

link (30) to at least one corresponding user interface (40, 50), each user interface (40, 50) comprising:

(a)   interfacing means for receiving one or more requests from at least one user (60) associated with said user interface (40, 50) for executing at least one preferred software

5   application therein;

(b)   memory for storing at least one software application therein;

(c)   computing means for determining whether or not said at least one preferred software application is already validated and stored in said memory, for validating one or more software applications received from the broadcast provider where said one or more

10   software applications are not already stored in the memory, and for executing one or more validated software applications in response to said one or more user requests such that said one or more validated software applications stored in said memory are executed in preference to validating corresponding one or more software applications receivable from the broadcast provider so as to provide said at least one user with more rapid temporal response to said one

15   or more requests from said at least one user.

19.   A system according to claim 18, wherein said computing means is operable to store said at least one software application when validated in the memory for subsequent potential re-use.

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20.   A system according to claim 19, wherein each user interface is provided with memory managing means operable to overwrite less frequently requested software applications with more recently requested software applications, thereby allowing for re-utilization of memory capacity for at least one more frequently user-requested software

25   application.

21.   A system according to claim 18, wherein the computing means is operable to compare at least one validated software application stored in the memory with at least one corresponding software application broadcast from the broadcast provider to check for

30   similarity, such that:

(a)   said at least one validated application stored in the memory is executed in the computing means when correspondence between said at least one stored application and at least one broadcast application is identified; and

(b)   said at least one broadcast application is checked for validity, and stored in the
memory if validated and subsequently executed in the computing means,

          the computing means thereby being operable to update said at least one
application stored in the memory when newer corresponding at least one application is
5   broadcast from the broadcast provider.

22.   A system according to claim 18, wherein said at least one user interface and
corresponding at least one communication link are operable to convey one or more user
requests for the preferred software application to the broadcast provider which is responsive
10   to broadcast said requested preferred application to said at least one user interface.

23.   A system according to claim 18, wherein the broadcast provider is operable to
broadcast via said at least one communication link one or more software applications in a
repetitive temporal manner for selective loading at said at least one user interface.
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24.   A system according to claim 23, wherein the broadcast provider is operable to
broadcast said one or more software applications in a pseudo-continuous manner.

25.   A system according to claim 18, wherein said broadcasting system is a digital
20   television broadcasting system wherein said at least one user-interface corresponds to at least
one step-top-box coupled to associated displaying means, and said at least one
communication link is implemented by at least one of wireless links, fibre optical links and
conductive wire communication links.

25   26.   A system according to claim 25, wherein said displaying means comprises at
least one of a cathode ray tube, a pixel plasma display, a pixel back-lit liquid crystal display
and a pixel projection liquid crystal display.

27.   A system according to claim 18, wherein said at least one preferred software
30   application is selectable by use of at least one graphic representative symbol presented to said
at least one user at said at least one user interface.

28.   A system according to claim 27, wherein said at least one graphic symbol is
implemented as at least one graphics icon.

29.   A system according to claim 18, wherein said at least one user interface is implemented as at least one mobile telephone provided with corresponding graphic display.

5   30.   A system according to claim 18, wherein the memory is implemented as persistent memory operable to retain data therein when de-energized.

31.   A system according to claim 30, wherein the memory is implemented as non-volatile memory utilizing at least one of: solid-state flash memory, magnetic disc memory.

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32.   A system according to claim 18, wherein said at least one software application is implemented as one or more Java Xlets.

33.   A system according to claim 18, wherein the computing means is operable to

15   perform validation by way of a software-implemented Security Manager and execute validated software applications by way of a software-implemented Virtual Machine provided in said computing means.

34.   A system according to claim 18, wherein said computing means is operable to

20   download, to validate and to store in said memory said at least one validated software application as a continuous concurrent background activity.